

A large, semi-transparent white circle is centered over a city skyline at dusk. Inside the circle, the text "CIRCULAR CITIES & BUSINESS" is written in white, with "CIRCULAR" on the top line, "CITIES &" on the middle line, and "BUSINESS" on the bottom line. Below the text is a stylized logo consisting of a white 'C' with a vertical line through its center. The background shows a dense urban landscape with numerous skyscrapers, some of which have illuminated windows and signs. The sky is a mix of deep blue and orange from the setting or rising sun.

CIRCULAR CITIES & BUSINESS



AGENDA

1 CIRCLE ECONOMY

2 WHY A CIRCULAR ECONOMY IN CITIES?

3

4 EMPLOYMENT IN THE TRANSITION

5 NEXT STEPS



An aerial photograph of a lush green landscape. A light-colored path or road runs diagonally across the frame, bordered by a row of small, rounded green bushes. To the right of the path is a body of water, possibly a river or a lake, with a dark, reflective surface. The land is covered in vibrant green grass and some patches of bare earth or dry grass. The overall scene is bright and natural.

1

CIRCLE ECONOMY

Who we are





We are a **global impact organisation** that empowers businesses, cities and nations with practical and scalable solutions to put the circular economy into action.

Our **mission** is to **deliver practical and scalable circular economy solutions to the world.**

Our **vision** is an **economic system that ensures the planet and all people can thrive.**

To avoid climate breakdown, our **goal** is to **double global circularity by 2032.**

We are a team of international experts
driven to make the circular economy
happen: from data, digital, industrial
ecology, economics, design and
communications.



OUR TEAM HAS EXPERTISE
ACROSS CRUCIAL TOPICS AND IMPACT SECTORS



Textiles



Finance



**Built
Environment**



**Capital
Equipment**



**Circular
Jobs**



**Metrics for
circularity**



Data



**Design for
circularity**



Digital



WE HAVE **A DECADE OF** **EXPERIENCE** UNDER OUR BELT

70+
REPORTS
PUBLISHED

since 2016



80+
BUSINESSES
SUPPORTED

through our Business Scan



31+
CITIES

kickstarted their circular
transition thanks to the
Circle City Scan

Supported

20+
NATIONS



with their
circular vision

3000+
CASE STUDIES
COLLECTED



on the Knowledge Hub; the
world's largest open source
online collection



2000+
PEOPLE TRAINED

in circular economy principles

Explore all our impact on → <https://impact.circle-economy.com/>



TO DATE, WE HAVE HELPED **39+ CITIES** IN IMPLEMENTING
OVER 200+ CIRCULAR PILOT PROJECTS



Accra (GH)	Bonn (DE)	Lausanne (CH)	Quezon (PH)
Almaty (KZ)	Brussels (BE)	Nairobi (KE)	Rabat (MA)
Amsterdam (NL)	Cape Town (SA)	New York (US)	Rotterdam (NL)
Amstelveen (NL)	Cornwall (GB)	Prague (CZ)	São Paulo (BR)
Austin (US)	Den Haag (NL)	Philadelphia (US)	Toronto (CA)
Basel (CH)	Glasgow (GB)	Portland (US)	Zurich (CH)
Batangas (PH)			
Bern (CH)			
Bogor City (ID)			





2

WHY THE **CIRCULAR ECONOMY IN CITIES**



THE CURRENT 'LINEAR' ECONOMY...



Consumes
**100 billion tonnes
of materials
annually**

Tripled in the last 50 years



Emits over
**59.1 Gt
of GHGs**

Expected to hit 80
Gt by 2032



Is only
**8.6%
circular**

Wasting 91% of
everything we use



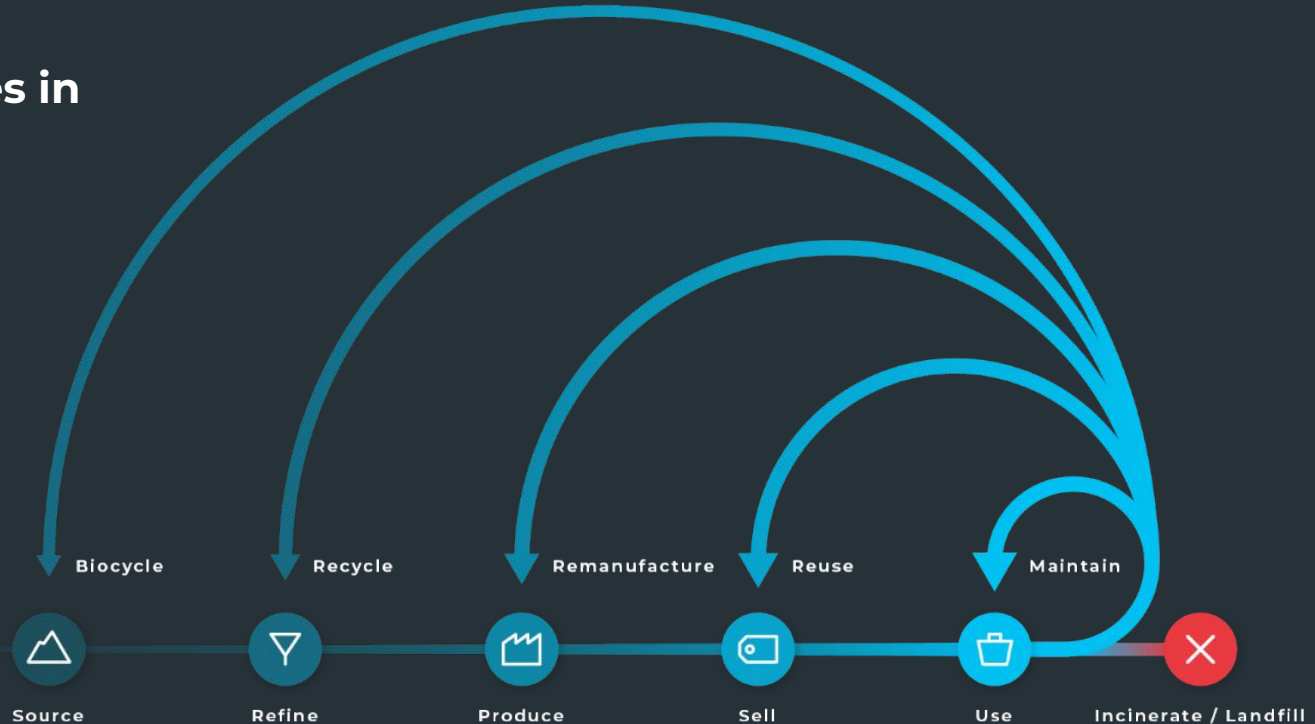
IT'S TIME
TO RETHINK
EVERYTHING
**AND REDESIGN
THE SYSTEM**



THE **CIRCULAR ECONOMY** PROVIDES THE TOOLS TO ACHIEVE **PROSPERITY FOR ALL WITHOUT EXHAUSTING EARTH'S RESOURCES**



It mimics natural cycles in
which waste does not
exist





CITIES

ARE ENABLERS

Cities are centres of innovation, manufacturing and business, and have high potential to change the way resources are managed to achieve multiple benefits for people and the planet.





CITIES



Value
creation



Job
creation



Better
air quality



Competitiveness
in global markets



Reduced CO2
emissions

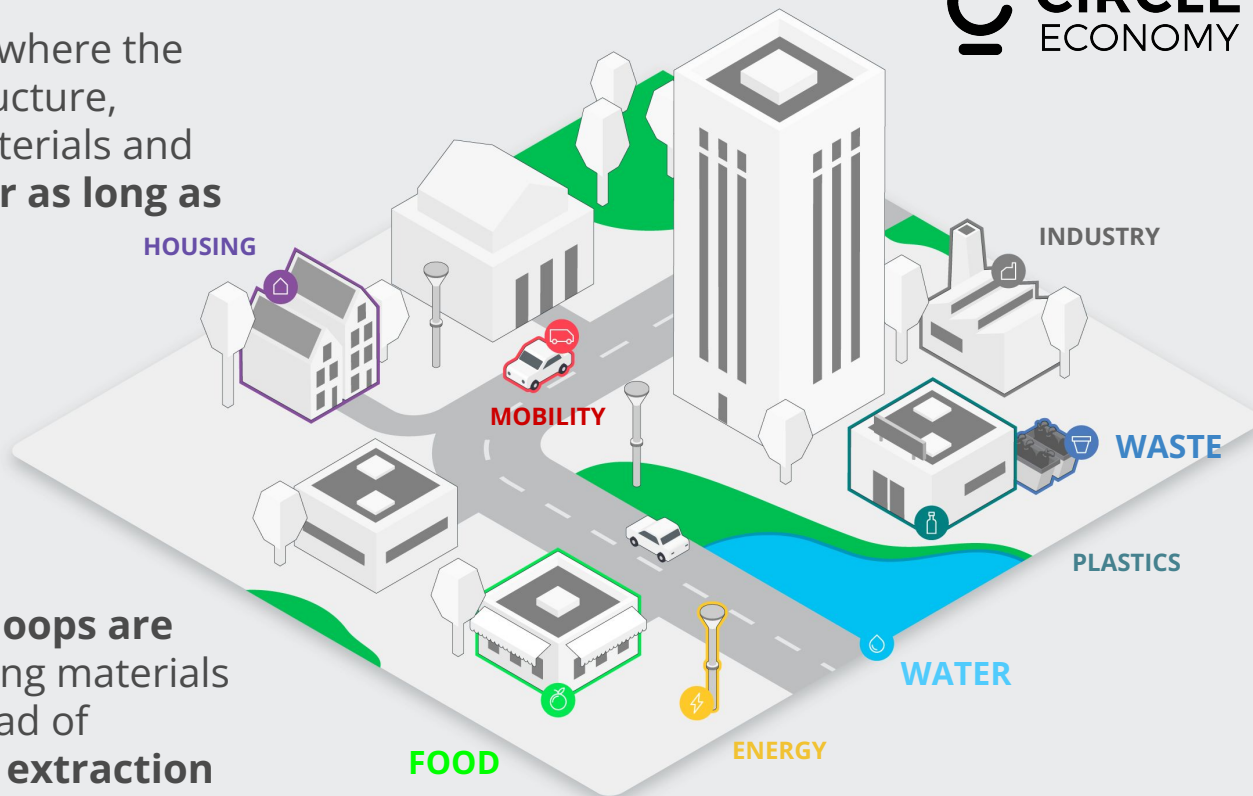


Reduced
resource use

CAN BENEFIT

For cities, a circular economy yields great benefits. These range from reduced greenhouse gas emissions, savings on landfilling costs and improved security of materials, to new livelihood opportunities and local value creation.

A **circular city** is a system where the value and utility of infrastructure, products, components, materials and nutrients is **maintained for as long as possible**.



In a circular city, **material loops are closed**, meaning that existing materials are repeatedly cycled instead of becoming waste; **resource extraction** is also **minimized**.



2

CHOOSING INDICATORS TO MEASURE PROGRESS

VIENNA'S TARGETS

Reduce its consumption-based material footprint per capita by 30 percent by 2030 and by 50 percent by 2050.

From 2030, planning and building appropriate to the location and use for maximum resource conservation will be standard for new builds and renovations.

In 2050, 80 percent of components and materials from buildings to be demolished and major conversions will be reused or recycled.

Set regulatory and qualitative standards with regards to life-cycle and recycling-oriented planning and building in the field of resource conservation.



DEFINING INDICATORS TO MEASURE PROGRESS TOWARDS TARGETS



HOW TO SELECT INDICATORS

- Identify, define and prioritise circular indicators to align with each target
- Different frameworks exist
- Establish a commonly agreed set of indicators through stakeholder engagement
- Ensure the indicators are measurable and consequently, targets are attainable
- Multiple Circular indicators selection frameworks available:
 - [Project CIRCuIT](#): Collaborative project in Europe to measure circularity in Built Environment

HEADLINE INDICATORS

Examples:

- % circularity
- Share of scarce resource
- Total waste generation

PERFORMANCE INDICATORS

Examples:

- Recycling rate
- Share of secondary resource input in construction

PROCESS INDICATORS

Examples:

- Share of sustainable products in portfolio
- # departments with KPIs
- Customer attitude towards green products
- Awareness among employees
- Material footprint

WHAT TO MEASURE: AN EXAMPLE FOR VIENNA



HOW TO SELECT INDICATORS

In 2050, 80 percent of components and materials from buildings to be demolished and major conversions will be reused or recycled.

Indicator (unit)	Communication power Does the indicator communicate to a broad range of audiences (i.e. do people understand it)?	Proxy power Does the indicator represent the target (or result)?	Data power Is quality data available on a timely basis for this indicator?
Amount of Construction & Demolition waste generated (tonnes)	High	High	Medium
Rate of reuse or high-value recycle (%)	High	High	Low
Demolition rate (%)	High	Medium	Medium

**Evaluation scores might be different for Vienna, this is based on our current understanding of the circular indicator landscape.*

WHAT TO MEASURE: COMPARISON OF CITIES

PROJECT CIRCUIT



HOW TO MEASURE AND TRACK INDICATORS

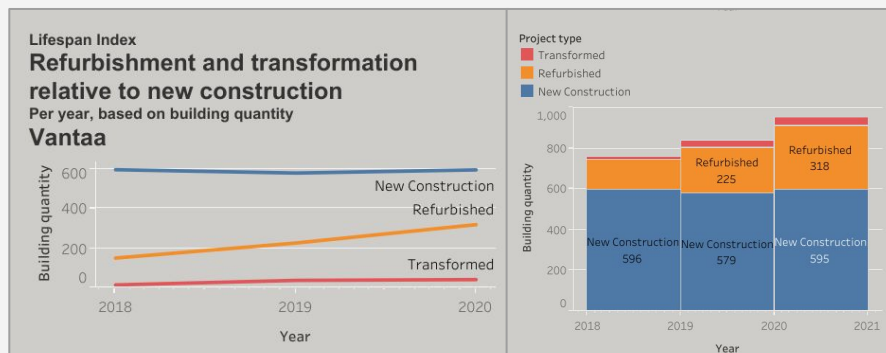
Cities	Amount of Construction and Demolition Waste (tonnes in 2018)	Construction and Demolition Waste Recycled (tonnes in 2018)	Proportion of CDW recycled (%)
Helsinki	517,126	276,372	53.44%
London	6,957,904	2,683,533	39.65%
Hamburg	962,108	763,844	76.59%

WHAT TO MEASURE: AN EXAMPLE FOR VANTAA

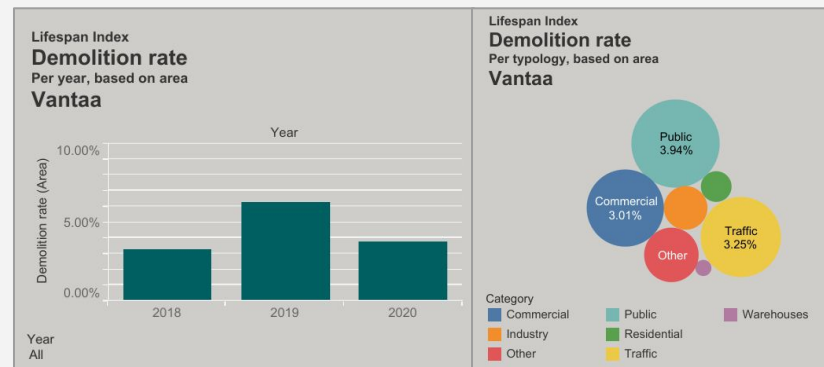


HOW TO MEASURE AND TRACK INDICATORS

Refurbishment and transformation relative to new construction



Demolition rate



Data sources: 'City Circularity Atlas' spatial maps developed by Project Circuit and tailored to specific cities based on demand. It uses a combination of datasets, satellite imagery sensors and ad-hoc data.

Examples: [Demolitions in Copenhagen](#), [Building Categories in Hamburg](#), [Waste received by borough in London](#).



3

MEASURING PROGRESS TARGETS & INDICATORS

EXPLORING EXAMPLES FROM OTHER CITIES



EXAMPLE TARGETS FROM PIONEERING CITIES

Paris circular food system's by 2030...



Decrease the region's "food" carbon footprint by 40%.



Stimulate 75% of Parisian households to regularly buy organic products.

London a circular built environment...



Reduce yearly consumption of virgin materials by 20% in new built environments and show cost savings of 15%.



The equivalent of 100 per cent of London's waste should be managed within London (i.e. net self-sufficiency) by 2026

❖ 48% of all waste in London comes from construction, excavation and demolition

Amsterdam a circular economy consumer goods...



The City will establish an efficient and accessible infrastructure of sharing platforms, second-hand shops, online marketplaces and repair services by 2023.



From 2025 onwards, products that can no longer be repaired must be upcycled, i.e. processed into products with the maximum possible value.

CASE 1: TARGETS FOR A CIRCULAR FOOD SYSTEM



Paris circular food system's by 2030...



Increase the share of food consumed in Paris and produced in the Paris Basin to 50% compared to 25% currently.



Decrease the region's "food" carbon footprint by 40%.



Stimulate 75% of Parisians households to regularly buy organic products.



Mobilize the key players in the Paris Region (ile-de-France) to reach a target of 20% of agricultural land dedicated to organic agriculture, compared to 2.7% in 2017

CASE 1: TARGETS FOR A CIRCULAR FOOD SYSTEM



Amsterdam's circular food system's by 2030...



Food waste by consumers and businesses will have been reduced by 50% by 2030.



Amsterdam will work with businesses in the food chain to start better adapting regional food production to regional needs before 2025, for example by promoting circular agriculture.



Amsterdam aims to have separate collection of kitchen and garden waste for 73% of Amsterdam's households by 2030.

CASE 2: TARGETS FOR A CIRCULAR BUILT ENVIRONMENT



London a circular built environment (and mobility)...



Reduce yearly consumption of virgin materials by 20% in new built environments and show cost savings of 15%.



All taxis and private hire vehicles to be zero emission capable by 2033



All TfL buses to be zero emission by 2030



The equivalent of 100 per cent of London's waste should be managed within London (i.e. net self-sufficiency) by 2026

CASE 3: TARGETS STATEMENTS FOR A CIRCULAR SYSTEM OF CONSUMER GOODS



Amsterdam a circular economy consumer goods...



By 2030, the City will implement 100% circular procurement and will also reduce its overall consumption by 20%.



By 2030, the environmental footprint of the textiles, electronics and furniture sold and used in Amsterdam will have been reduced.



The City will establish an efficient and accessible infrastructure of sharing platforms, second-hand shops, online marketplaces and repair services by 2023.



From 2025 onwards, products that can no longer be repaired must be upcycled, i.e. processed into products with the maximum possible value.

The background of the slide is a dark grey or black surface with a network of thin, light grey lines connecting numerous small, glowing golden-yellow spheres. These spheres are of varying sizes and are distributed across the entire frame, creating a sense of depth and connectivity. The lines are also thin and light grey, forming a web-like structure that suggests a global or local network.

4

LOCAL COLLABORATION

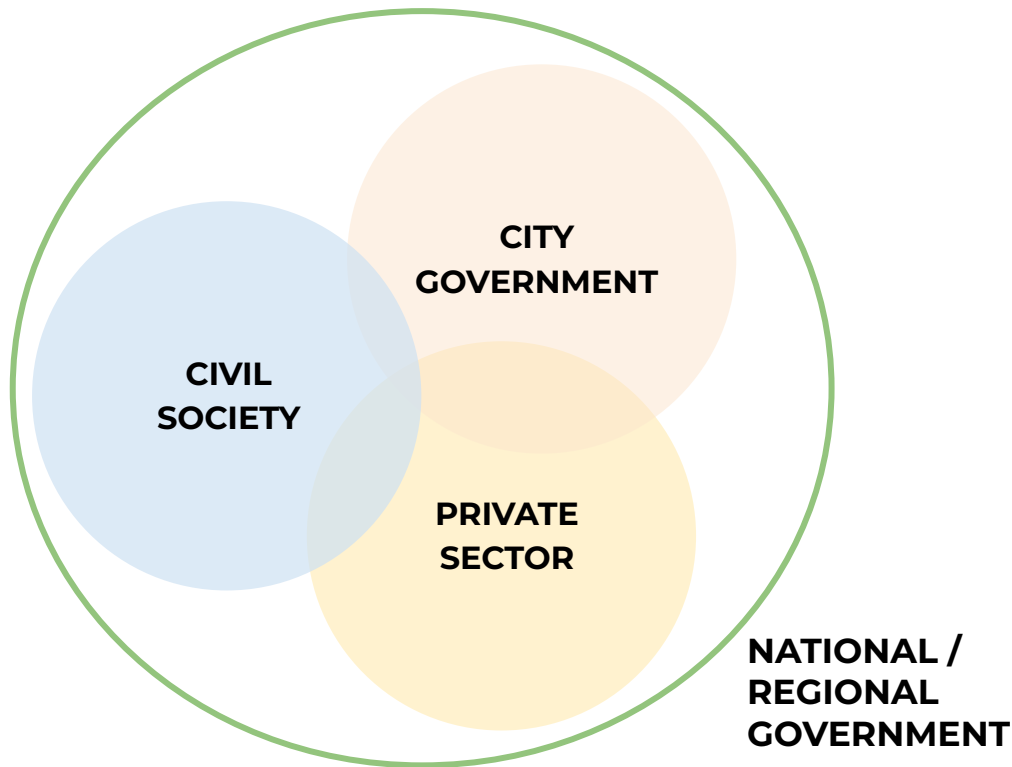
MULTI-STAKEHOLDER APPROACH TO DELIVER CIRCULAR PROJECTS

Cities have unique identity, culture, governance, and ambitions for the future. Key urban changemakers need to be in one room.

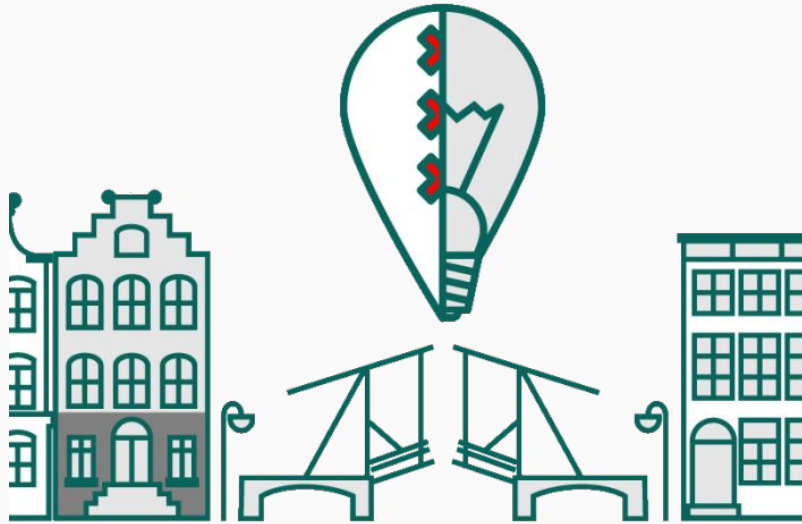


STAKEHOLDERS IN CIRCULAR CITIES

A **Circular City** promotes a just transition from a linear to a circular economy across the urban space, through **multiple city functions and departments** and in **collaboration with residents, businesses and the research community**.



EXAMPLE: AMSTERDAM STARTUP IN RESIDENCE



Amsterdam's municipality and start-ups win-win...

What are the main **challenges** that the city is facing?

What start-ups have **solutions** that can address these challenges?

6 months programme offers start-ups:

- **Training** to set-up BM
- **Mentoring**
- **Workspace**
- Access to **knowledge** and experts

If start-up is able to develop an impactful and feasible solution, the city is the **launching customer**

EXAMPLE: GLASGOW NET-ZERO

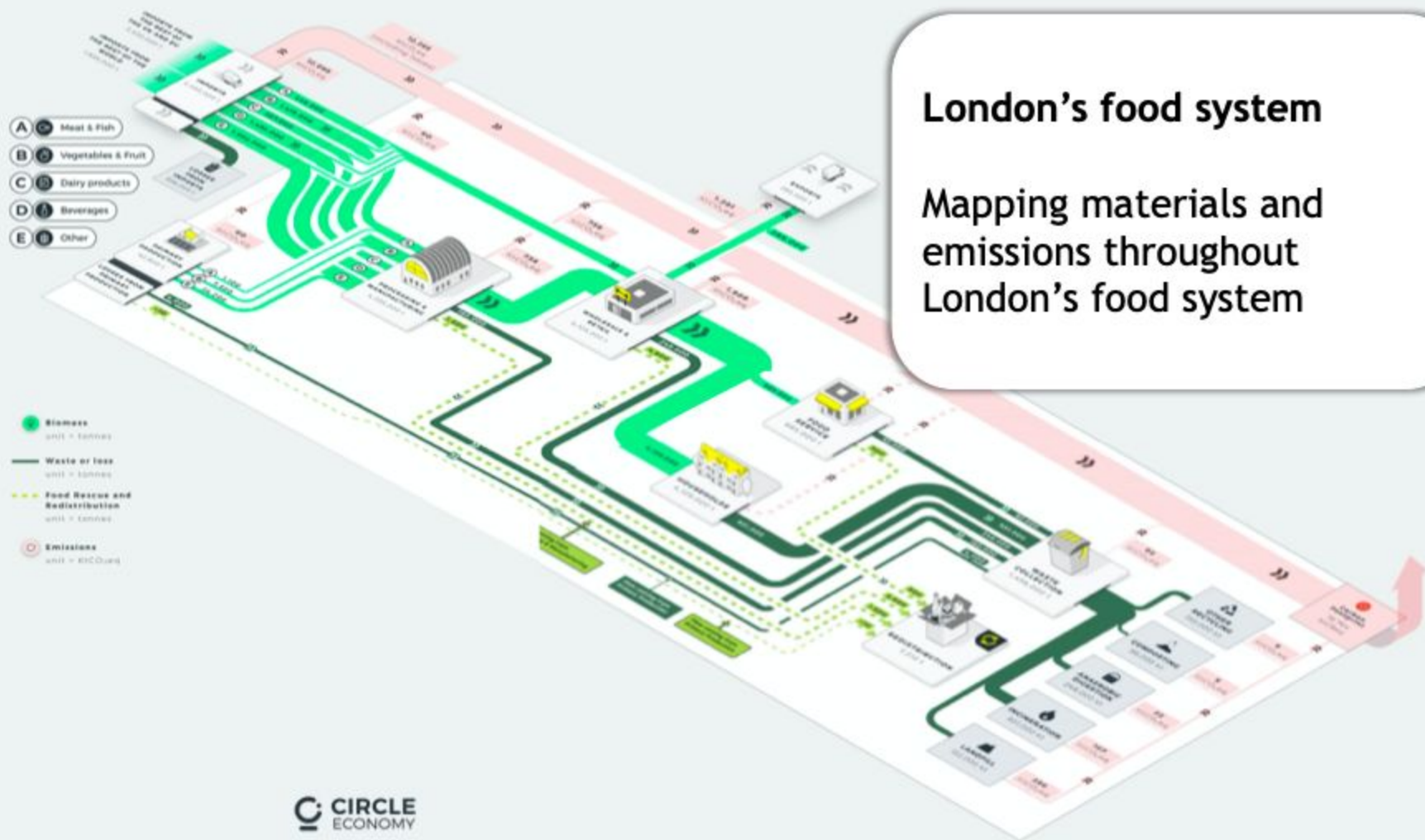


Glasgow aimed to...

Help Glasgow **businesses understand the links between the adoption of circular strategies and business models and reaching net-zero carbon.**

Highlighted key opportunities for businesses in five sectors:

- Food and drink
- Textiles
- Manufacturing
- Events and conferences
- Built environment



Leverage points

Reduce meat consumption

by 70%



↓ **20%**

reduction in food-related
consumption-based emissions

Reduce food loss & waste

by 50%



↓ **10%**

reduction in food-related
consumption-based emissions

Make better use of waste

through composting and
anaerobic digestion



↓ **0.4%**

reduction in food-related
consumption-based emissions

An aerial photograph of Prague, Czech Republic, showing the Charles Bridge crossing the Vltava River. The bridge is crowded with people. In the background, the dense Old Town of Prague is visible, featuring numerous red-roofed buildings and the prominent spires of St. Vitus Cathedral on the right. The sky is overcast with soft, grey clouds.

**HOW WILL PRAGUE'S STAKEHOLDERS
JOIN FORCES TO ACHIEVE ITS
CIRCULARITY AND CLIMATE TARGETS?**

THANK YOU FOR YOUR ATTENTION



Jordi Pascual

Cities Lead

jordi@circle-economy.com



Beyond the theory.
Towards change.